

DETAILED ACTION

1. Claims 1 and 3-12 are pending. Claim 2 has been canceled. Applicant's arguments and amendments filed 12/28/09 have been entered.

Objections/Rejections Withdrawn

The following objections/rejections set forth in the Office action mailed 6/25/09 have been withdrawn:

The rejection of claims 1-12 under 35 U.S.C. 102(b) as being anticipated by Domburg et al (US 5,747,441) has been withdrawn.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 and 3-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Domburg et al (US 5,747,441) in view of Kamel et al (US 5,230,822).

Domburg et al teach an encapsulated bleach particle comprising 1 to 30% by weight of a coating including a gelled polymer; from 70 to 99% by weight of a core

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material selected from the group consisting of a peroxygen bleach compound, a bleach catalyst, and a bleach precursor. See Abstract. The polymer used as a coating may be whey proteins, egg protein gels, etc. The encapsulated particles of the invention have a mean particle size of 500 to 1500 microns when used in detergent powders and in liquid formulations, have a particle size in between 10 and 200 microns. See column 2, lines 50-69. Suitable peroxygen bleaches include alkali metal perborates, percarbonates, etc. Suitable peracid precursors include tetraacetylene diamine (TAED), etc. Peracid precursors, which may be encapsulated, may be incorporated into products along with a source of hydrogen peroxide, which also could optionally be encapsulated. See column 3, line 28 to column 4, line 55. The bleaching detergent composition may also contain enzymes such as proteases, cellulases, etc. See column 7, lines 1-30.

However, Domburg et al do not teach the use of a coating agent for the enzyme or a liquid detergent composition containing a coated bleaching agent, a coated enzyme in which the coating is sensitive to a change in temperature, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

Kamel et al teach solid core particles encapsulated in a single coat of paraffin wax, the wax having a melting point of about 40 to about 50 degrees Celsius. The coating prolongs the time in which particles encapsulated therewith may remain active in aqueous environments. See Abstract. Additionally, the coating allows the bleach to be present in the same composition with other incompatible ingredients such as perfumes, colorants, builders, structurants, surfactants, etc. The core material of the wax encapsulated particles includes bleach, enzymes, peracid precursors, bleach

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catalysts, surfactants and perfumes. See column 4, lines 45-60. The solids content of the wax is from 100 to about 35% at 40 degrees Celsius and from about 0 to 15% at 50 degrees Celsius. See Abstract. The wax coating preferably has a thickness of from 200 to 600 microns. See column 3, lines 45-60. The shape of the core material is spherical or as close to this geometry as possible and has a diameter of from 100 to 2500 microns. See column 5, lines 1-5. For liquid formulations with a "gel" appearance and rheology, particularly if a clear gel is desired, a chlorine stable polymeric thickener is particularly useful. Suitable polymers are acrylic acid polymers that are cross-linked and are listed under the tradename Carbopol 940, etc. These thickeners are used in amounts from 0.5 to 3% by weight. See column 21, lines 15-35.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to coat the enzyme as taught by Domburg with a coating agent such as paraffin wax, with a reasonable expectation of success, because Kamel et al teach that the coating provides stability to the enzyme in aqueous environments and prevents the interaction of the enzyme with other active ingredients in the composition, and further, such stability would be desirable in the cleaning compositions taught by Domburg et al.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a liquid detergent composition containing a coated bleaching agent, a coated enzyme in which the coating is sensitive to a change in temperature, and the other requisite components of the composition in the specific amounts as recited by the instant claims, with a reasonable expectation of success,

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because the broad teachings of Domburg et al in combination with Kamel et al suggest a liquid detergent composition containing a coated bleaching agent, a coated enzyme in which the coating is sensitive to a change in temperature, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

Claims 1, 3, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by GB 1,242,247.

'247 teaches a detergent composition that contain an oxygen-liberating bleaching compound, for example, sodium perborate and enzymes. See page 1, lines 1-20. The bleaching agent is coated with a material such as fatty acids such as palmitic acid, stearic acid, arachidic acid, etc. Note that, the Examiner asserts that the fatty acids as disclosed by '247 would fall within the scope of "fat" as recited by instant claim 3. The enzymes may be free in the composition or in a preferred form, can be coated or encapsulated. See page 2, lines 1-45. Further, the Examiner asserts that the compositions as taught by '247, once placed in a wash liquor, would fall within the scope of a liquid as recited by the instant claims. '247 discloses the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of '247 anticipate the material limitations of the instant claims.

Claims 5, 7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1,242,247 as applied to claims 1, 3, 6, and 9 above, and further in view of Domburg et al (US 5,747,441).

'247 is relied upon as set forth above. However, '247 does not teach the use of protease or the specific particle size of the bleaching agent as recited by the instant claims.

Domburg et al are relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a protease enzyme in the composition taught by '247, with a reasonable expectation of success, because Domburg et al teach the use of a protease enzyme in a similar bleaching composition and further, '247 teaches the use of enzymes in general.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use bleaching agents having a particles size such as 1500 microns in the composition taught by '247, with a reasonable expectation of success, because Domburg et al teach the use of bleaching agents which are coated having a particle size such as 1500 microns in a similar composition and further, '247 teaches the use of particulate bleaching agents which are coated in general.

Response to Arguments

With respect to the rejection of the instant claims using Domburg et al, Applicant states that Domburg et al do not teach the use of coated enzymes or that the bleach coating could act as the enzyme substrate. In response, note that, a new rejection has been made, as set forth above, in which Kamel et al has been used as a secondary reference and has been relied upon for its teaching of a coating agent for the enzyme. The Examiner asserts that Kamel et al is analogous prior art relative to Domburg et al

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and that one of ordinary skill in the art clearly would have looked to the teachings of Kamel et al to cure the deficiencies of Domburg et al. Kamel et al is a secondary reference relied upon for its teaching of a wax coating for the enzyme. The Examiner asserts that one of ordinary skill in the art clearly would have been motivated to coat the enzyme as taught by Domburg with a coating agent such as paraffin wax, with a reasonable expectation of success, because Kamel et al teach that the coating provides stability to the enzyme in aqueous environments and prevents the interaction of the enzyme with other active ingredients in the composition, and further, such stability would be desirable in the cleaning compositions taught by Domburg et al. Further, note that, the coating agent as taught by Kamel et al clearly is sensitive to a change in temperature as recited by the instant claim since Kamel et al teach that the wax coating has a melting point of about 40 degrees Celsius to 50 degrees Celsius (See Abstract of Kamel et al). Further, the Examiner asserts that once the wax coating of the enzyme is dissolved or melted, the coated bleach as taught by Domburg et al would act as a substrate for the enzyme. Thus, the Examiner asserts that the teachings of Domburg et al in view of Kamel et al are sufficient to render the claimed invention obvious under 35 USC 103.

Note that, while Domburg et al or Kamel et al do not specifically mention that coating of the bleaching agent acts as a "substrate" for the enzyme as recited by the instant claims, the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage

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or result discovered by applicant. Note that, while there must be motivation to make the claimed invention, there is no requirement that the prior art provide the same reason as the applicant to make the claimed invention. In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972). See MPEP 2144.

With respect to the rejection of the instant claims under 35 USC 102 using GB '247, Applicant states that '247 also fails to teach that a composition wherein both bleach and enzyme are coated, and the bleach coating acts as the enzyme substrate. Further, Applicant states that '247 fails to teach a liquid composition as recited by the instant claims. In response, note that, as stated above, the Examiner asserts that the compositions as taught by '247, once placed in a wash liquor, would fall within the scope of a liquid as recited by the instant claims. Further, the Examiner asserts that '247 clearly teaches that the enzyme and bleaching agent are both coated (See column 3 of '247). Additionally, '247 clearly teaches that the coating agent is sensitive to a change in temperature since '247 teaches that the coating material is capable of releasing the enzymes in the washing liquor at a temperature lower than 50 degrees Celsius. Further, the Examiner asserts that once the enzyme is released due to the dissolution of the low melting point coating agent, the coating of the bleaching agent, which has a high melting point, would act as a substrate for the bleaching agent as recited by the instant claims. Thus, the Examiner asserts that the teachings of '247 are sufficient to anticipate the claimed invention under 35 USC 102.

Conclusion

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory R. Del Cotto/
Primary Examiner, Art Unit 1796

/G. R. D./
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